Farm Sideline Turns Into Half Century Manufacturing Business

MORGANTOWN (Berks Co.) — Fifty years ago a limestone quarry was located on the Stoltzfus family dairy farm in Morgantown. The quarry, which was a source of lime for local farmers, is now crossed by the Pennsylvania Turnpike.

The farm quarry was not unusual for the countryside around Morgantown. "In this territory there's an old limestone kiln on practically every farm," Stoltzfus says.

In the 1930s, when the Civilian Conservation Corps began spreading lime on fields, farmers saw that where the lime was applied more thickly, clover grew better. "Farmers soon realized that for every dollar they spent on lime, they could get ten dollars back in clover," remembers C. U., as he is known.

Much of the limestone produced in the early part of this century was used for road stone. In fact, Stoltzfus recalls, four to five miles of Route 10 north of Morgantown got its stone from the quarry on his father's farm.

Gradually, as farmers realized lime's importance in neutralizing soil acidity and enhancing the uptake of potash and other soil nutrients, more and more lime was applied to local fields.

Stoltzfus explains that raw limestone today is ground to produce lime fine enough for use on farm fields. When he was a youth, however, a usable product was created by burning limestone in kilns. Burned lime was hauled into the field where it was to be applied, then allowed to "slack" over a period of a couple of months. It was then spread over the field by hand.

"We blasted the limestone out of the quarry with dynamite. We used the 'light-and-run' technique. We would watch for cars, then set it off. It wasn't very sophisticated, but it did the job."

By the late 1930s, Stoltzfus had crushing equipment capable of producing a couple of tons per hour. That's when he began developing machines for spreading the lime.

Technical Challenges

Stoltzfus built his first spreader to allow him to spread lime on his neighbors' fields. Since he didn't know how to weld, he had a local Mennonite welder help him. The original spreader had a spinner-type mechanism to broadcast the lime, which worked quite well. But other technical problems needed more work. "At first we broke a lot of transmission gears," said C.U. "At one time we bought all the 4-speed transmissions from all the junk yards in the area."

Not every invention was a success. The booms on this experimental spreader from the 1950s were tubes which shot lime out the sides. It proved too dusty.

Another challenge was the auger. Stock augers were too large for C. U.'s spreaders. At first he worked on the spreaders at night as a sideline and in the winter. But when he finally figured out how to make his own auger fabrications, he became fully involved in the spreader manufacturing business.

C. U. Stoltzfus and Ruth Weiler were married in June 1945, the same year the first spreader was built for resale, rather than for his own use. With Ruth's experience in bookkeeping, they formed a team that continues today, under the oversight of the next generation.

Spreaders Catch On, Evolve

For selling, nothing worked better than taking a spreader into a farmer's field. Once farmers saw what the spreader could do and how well it was built, it generally came down to settling on a fair price. "We sold our first spreader to a neighbor who watched us spread with it. Then we sold one to a farmer from York County who had heard about it," recalls Stoltzfus. "He came to see the spreader work, then we had a little lunch, and he drove the spreader home."

Several spreader innovations followed. Dust was such a problem with early models that C. U. patented a spreader with a canvas cover to contain it. His wife Ruth recalls one of the first times she saw C. U. "He was rumbling down the road in his spreader with dust flying everywhere."

Lime spreaders in the early years were meant for custom spreading, meaning that they were mounted on trucks, allowing custom applicators to move quickly from farm to farm. To save trips to the field, C. U. designed a tender to haul along behind truck-mounted spreaders, saving time and keeping costs down. This concept led to another innovative idea: a pull-type spreader that a farmer could use with his own tractor. This put lime and fertilizer spreading capabilities into the hands of farmers who wanted to be able to control the timing of applications without waiting for custom applicators to get to them.

Though the designs were effective, the entire manufacturing process was more practical than highly disciplined. "We didn't have any working drawings," said Stoltzfus. "We used the 'hands-on' building method. We just built them and they worked." Though today's manufacturing methods are more controlled, some things haven't changed in decades. Speaking of the first pull-type spreaders, Stoltzfus said "The way we made it first is the way we make it today."

In the mid-1960's C. U. designed a truck mounted boom-type spreader. It allowed for more even application of dry lime, and was better at keeping dust down. It was a unique enough design to qualify for another patent. Today this design is also used to spread dry chemical and seed mixtures.

Christian U. and Ruth Stoltzfus celebrate 50 years of marriage and working together building agricultural spreading equipment.

Success From Solving Others' Problems

Another problem farmers faced was spreading "wet" lime. Delivered and dumped in mounds for economy purposes, often it was rained on and became very tough to spread. The Stoltzfus Wet Lime Spreader was designed to handle this difficult material. "The secret to this machine is in the correct width and draw of the apron chain," said Stoltzfus.

Farmers soon found, especially in upstate New York, that the spreader paid for itself within the first year because of the economy of spreading stockpiled lime.

Stoltzfus almost built himself out of business. The spreaders operate so reliably and are so durable that many are still in use after 15, 20, even 30 years. "We took a 15 year-old spreader back in trade that had had no maintenance. It still works well," C. U. reports. "After a while, when everyone has one that wants one, and they don't break down, you have to come up with some other ideas to keep things going."

New Ways of Looking at Things

C. U.'s health problems in the 1980's led to hiring C. U. and Ruth's son-in-law, Gary Lake, as General Manager of the company. He introduced some changes in the company's direction. Today Stoltzfus makes spreaders for specialized markets such as orchards, vegetable farms and highway maintenance use. Also, the company has become a dealership for other lines of ag chemical handling and application equipment.

C. U. has seen many farming practice changes over 50 years "We farmed with horses until we got our first tractor in the 1930s," he said. "We harvested corn by hand, where today you have 12-row combines. We used to use a lot of calcium phosphate and manure, but there were very few pesticides. The ones we did have were pretty dangerous, like arsenate of lead. In the 1960s and '70s pesticides were applied in much heavier applications than today. There's a new sensitivity to caring for the land and keeping chemical use to a minimum. In some ways it's like going back to the ways we used to do things," Stoltzfus said.

After 50 years in the spreader business, C. U. continues to look to the future. Today he works on research and development projects. The latest spreader innovation is an all-purpose spreader called the CU 56i, after its inventor. It combines

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In the 1940s, C. U. Stoltzfus began building equipment to spread the lime taken from this quarry on the family farm.